FINANCIAL MODELING AND COUNSELING SYSTEM

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RELATED APPLICATIONS

The present application is a continuation-in-part of U.S. application number 09/431,389 entitled "SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR A FINANCIAL MANAGEMENT AND ADVICE GENERATING INFORMATION FRAMEWORK" filed November 1, 1999, and U.S. application number 09/580,276 entitled "SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR GAUGING PAST, PRESENT AND FUTURE PORTFOLIO PERFORMANCE IN A NETWORK BASED PERSONAL INVESTMENT MANAGER" filed May 25, 2000 both of which we incorporated herein by reference.

FIELD OF THE INVENTION

The present invention relates generally to computerized information systems and more particularly to computer implemented financial modeling systems.

BACKGROUND OF THE INVENTION

Financially prudent develop a comprehensive financial plan that will aid them in achieving their financial goals. Traditionally, many these individuals have entrusted their financial plans to personal financial advisors.

More recently, however, same individuals have increasingly relied upon computer-based systems that organize their financial assets and liabilities and further provide them with a summary of their financial health. However, these systems tend to

5   focus on the administrative aspects of financial planning without enabling the user to make reasoned choices about their financial futures. Furthermore, these systems are limited by their inability to dynamically analyze the financial goals. These limitations are counterproductive to the user's needs to develop and manage an integrated personal financial plan from an executive decision-making perspective.

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Many existing financial management systems allow users to electronically organize their financial assets and liabilities. These systems typically focus on presenting the user with a transactional summary of their financial health. However, these systems fail to capture the user's financial intentions and expectations about their

15   future. Furthermore, these systems typically rely on the user to continually update their personal financial data. As a result, these systems are merely data-driven calculators that are incapable of providing the user with meaningful financial advice tailored to their financial intentions and expectations.

Similarly, some financial management systems present a static view of the user's

20   financial health. These systems typically require the user to provide the most current financial data relating to their financial assets and liabilities. Consequently, when the user wishes to develop or update their financial plan, the user must input their most

current financial data relating to their financial assets and liabilities. Consequently, when the user wishes to develop or update their financial plan, the user must input their most recent financial information. This problem is further exacerbated by the fact that these systems demand a lot of typing and guessing when the user enters

5   their financial data. This process is time-consuming and inefficient and does not promote an intuitive understanding of how complex financial variables interact to produce a sensible financial plan.

Another problem with many existing financial management systems is that

10   the user is typically limited to managing the transactional details of their financial data. In these systems the user is shielded from the planning and deciding aspects of developing their financial plan. Accordingly, the user learns very little from the process and remains heavily dependent on the system to provide an accurate summary of their financial health. These limitations further exacerbate the lack of

15   trust inherent within the relationship between the user and the financial management system.

Furthermore, many existing financial management systems merely project a future value of the user's financial portfolio without providing an indication of the

20   likelihood of achieving that value. Thus, the user is left without any real sense of how to compare one financial plan to another. Consequently, these systems fail to foster a deeper understanding of the risks and/or rewards associated with reasoned financial planning. Furthermore, the user is left to his own devices to interpret the

projected results of his financial model and thus leaves him dependant on a live

advisor to guide him on how to resolve various financial issues.

On the other end, when users consult a financial advisor a major portion of

5   their consultation time is spent on walking a user through setting up a financial plan.

Only after the financial plan is set up and analyzed by the financial advisor, can the

focus shift to possible problem areas. This process is time consuming, inefficient

and very expensive. The same would apply to financial advisors helping customers

with setting up an ideal portfolio, consistent with the customers risk tolerance,

10   investment style and market attitude toward. Again a great deal of the valuable and

expensive advisor time is spent setting up a financial profile for the customer,

whereas he should be focusing on specific recommendations to achieve specific user

goals.

15   Currently, no system exists that dynamically incorporates all of the user's

financial assets and liabilities into an integrated summary of their health. Individuals

do not want to focus on the transactional details of their financial information.

Instead, individuals desire to assume an executive decision-making role in managing

their financial life. A financial management system is needed where the user is

20   provided with an integrated summary of their financial health and is given

personalized financial advice tailored to their financial goals and intentions.

Furthermore, since automated coaching may not completely replace a live advisor's

expertise, experience and innovation in devising specific solutions to the user's

problems, access to both automated and live coaching is desirable. However, with

few economies of scale and under-use of enabling technologies make live advising

an expensive option. Thus the use of a live advisor may only be feasible for

individual with high net worth and large portfolio. Furthermore, a live advisor is not

available twenty four hours a day. No existing system has combined the cost savings

5   of an automated coaching with the expertise of a live advisor, promoting an

inexpensive comprehensive financial modeling and counseling tool.

SUMMARY OF THE INVENTION

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The present invention combines automated coaching with live advising

within the framework of a financial counseling and modeling system. This allows a

user to get the benefits of a live advisor's expertise, and experience and as well as

the convenience and cost savings of an automated coach. An automated coach alerts

15   and focuses the user attention to the issues to be addressed, and frames decisions to

be made. A live advisor supplies specific, innovative solutions based on the user's

unique financial situation. Automated coaching helps focus the user's attention to

specific problems and the live advisor provides specific solutions to those problems.

This makes a more efficient use of the time spent with the live advisor.

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In general terms, the present invention relates to a financial management

system for providing personalized financial advice to a user. The system operates in

a collaborative computing environment between the user and a financial advisor and

comprises a service level subsystem and an advice generating subsystem. The

service level subsystem allows the user to negotiate a service level agreement that defines the user's desired level of support and limits access to user provided information. The advice generating subsystem is coupled to the service level subsystem and includes one or more advice engines that dynamically analyze the

5   financial needs of the user in accordance with the user's service level agreement. Furthermore, the advice engine provides customized financial advice tailored to the user's life intentions.

The present invention also provides for a computing system that integrates

10   the components of a user's financial life into a strategic model. The system comprises an intentions profile subsystem and an aggregated modeling subsystem. The intentions profile subsystem captures the user's intentions in a dynamic and interactive computing environment. The aggregated modeling subsystem combines data from the intentions profile subsystem and external market data to create a

15   realistic life model of the user's lifetime financial health.

In an embodiment of the present invention, the quantity and kinds of services received by the user from the system is in part based on the service level agreement. The user and the financial institution negotiate a service level suitable for the user

20   and profitable for the financial institution. The access to the type and quantity of data provided by the user is also limited by the service level agreement. Preferably, the user interacts with the system through a user specific web page environment, wherein the web page is customized to the user based on his financial model and the data provided.

In another embodiment of the present invention, the user's life intentions may be expressed as revenue intentions and expense intentions and are captured in a LifePath model. The model integrates and displays the user's intentions as lifetime

5   cash flow requirements. Lifepath cash flow model highlights potential problems in the future and help focus the user and advisor's attention directly to these areas in need of attention. Furthermore, the LifePath model may include a risk modeling module that allows the user to introduce random life risk events into the LifePath model in order to stress test his financial stability. The risk modeling system

10   combines actuarial data along with the user's interactions to foster an intuitive understanding of the user's exposure to financial risk.

In another embodiment of the present invention, a financial model generator models the user's investment portfolio from the user's inputs. Preferably, the user

15   information includes the data supplied by to the LifePath model. The portfolio model may suggest various security options consistent with the user's investment style and risk tolerance calculating the effects of swapping various securities in and out of the user portfolio. Automated computer coaching focus the investors attention to areas in need of possible attention. This leverages the live advisor's time, who can then

20   spent his time with the investor to immediately focus on the problem and make necessary recommendations more cost effectively.

In all modeling systems of the present invention, the user has access to an automated rule-based coaching system directing the user's attention to the possible financial

problems and suggesting areas to focus attention on. Furthermore, the user further has access to a live advisor for more specific financial advice. The access to the automated coaching and the live advisor is controlled in part by the service level agreement.

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By providing both an automated coaching engine and access to a live advisor, the user can take advantage of the cost savings and convenience of an automated system as well as the full benefits of the expertise of a live financial advisor. By focusing the user's attention to specific problems areas, the user may take full

10 advantage of his time with a live advisor by directly attacking the problem and not waste any time identifying his problem and modeling his financial goals. All the information the live advisor needs has been formatted in a useful manner by the financial counseling and modeling system with the help of the automated coaching engine. These and other advantages of the present invention will be apparent upon a

15 study of the following descriptions and drawings.

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BRIEF DESCRIPTION OF THE DRAWINGS

The foregoing and other aspects and advantages are better understood from the

following detailed description of a preferred embodiment of the invention with

5   reference to the drawings, in which:

Figure 1 illustrates a representative system architecture in accordance with a

preferred embodiment;

Figure 2 is a block diagram of a financial management system;

Figure 3 is a block diagram of a representative hardware environment in accordance

10   with a preferred embodiment;

Figure 4 is a block diagram of a financial management system;

Figure 5 is a flow diagram a financial management system;

Figure 6 is a flow diagram of a Service level agreement process;

Figure 7 is an illustration of a LifePath model web page interface;

15   Figure 8 is another illustration of a LifePath model web page interface;

Figure 9 is an illustration of a investment portfolio generator web page interface;

Figure 10 is a flow diagram of an operation of the Investment Portfolio generator in

accordance with a preferred embodiment;

Figure 11 is a flow diagram of how to set risk tolerance operation in greater detail;

20   Figure 12 is a flow diagram of how to set investment style operation in greater

detail;

Figure 13 is a flow diagram of how to set Bull/Bear attitude operation in greater

detail;

Figure 14 is a flow diagram of how to build a computer generated portfolio;

Figure 15 is a flow diagram of how to model an existing portfolio;

Figure 16 is a flow diagram of how to rebalance a portfolio; and

Figure 17 is a flow diagram of an automated coaching and live advisor subsystems in accordance with a preferred embodiment.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

5   Figure 1 is an illustration of one embodiment of a financial management

information system, in accordance with the present invention, for providing

personalized financial advice in a collaborative computing environment. In figure 1,

financial management system 100 includes a financial advisor system 102 connected

through a wide area network 104 to the live advisor terminal 106 a user terminal

10   110. Preferably, the wide area network 104 is a global network such as the Internet.

The Internet is based on the TCP/IP communication protocol first developed by the

Department Of Defense in the 1960s. However, the present invention is not limited

to the Internet and the TCP/IP protocol. The present invention can be implemented

using any other protocols and many other networking system, including wireless

15   networks, the Network File Service (NFS) protocol used by Sun Microsystems or a

Novel network based on the UDP/IPX protocol.

Preferably, the financial advisor system 102 communicates with the user

through any number of devices such as handheld wireless personal organizers,

20   pagers, cellular telephones, land telephones and regular desktop computers. All of

the above equipment can act as a user terminal 110.

The user (e.g. individuals or company representative seeking financial

advice) may access the system using a user terminal 110 (e.g. personal computer). A

typical user computer terminal would be described in more detail in figure **3.** The user computer is preferably equipped with software to receive live streaming video and/or still pictures over the wide area network **104,** from the advisor video camera **108-B.** Preferably, the user terminal **110** is further equipped with a video camera

5   **108-A** and software to transmit live streaming video from the user, across the network **104** to the live advisor at the advisor terminal **106.** Access to the live financial advisor **106** and all other services provided by the Financial management system is controlled and channeled through the Financial Advisor system **102.** The user can access the financial advisor system **102** through the network **104** or by

10   telephone **109-A.** A user telephone call is channeled through a call center discussed further subsequently in Figure **2** to the Financial Advisor System and to the live advisor **106.**

The live advisor terminal **106** is preferably equipped with the video camera

15   **108-B** for transmitting live streaming video. The live advisor **106** may further communicate with the user via a telephone **109-B.**

Figure **2** is a block diagram of an implementation of the financial advisor system **102.** The user may access the system through the wide area network **104**

20   and through a firewall server **112.** In a preferable implementation of the present invention, the wide area network is the Internet, an intranet, etc. A Web server **114** provides the user with a personalized website providing an interactive interface between the user, the financial advisor and financial management system **100.** The financial advisor system **102** further comprises of a mail server **116,** an application

server **126**, a call center **117** and a data server **128**, all interconnected through a

local area network **113**. The local area network (LAN) **113** may be any wide area

intranet system or the internet.

5   Security is important in any financial system. The firewall server **112**

controls the access to the financial advisor system. The purpose and functionality of

a firewall server is to prevent access to the system by unauthorized users and it

would be appreciated by one skilled in the arts. Firewall servers are available

through a variety of vendors and have become a standard feature of any secure

10   system used as the primary defense against intruders and hackers.

The web server **114** provides a personalized interactive web page

environment for the user to operate in once he accesses the system. The web page is

acting as the web interface between the financial system   Web pages are created

15   using the Hyper Text Markup Language (HTML),scripting languages such as Java

Script™ or Pearl™ as well as Java ™ applets. Creation of customized web page

using any of the above programming languages is well within the scope of one

skilled in the arts. The personalized web page provides an environment and an

interface for the user to interact with the financial advisor system **102**. As an

20   example, in one embodiment of the present invention, by selecting an appropriate

icon from the interactive personalized website, the user is able to learn, plan, decide,

transact and monitor his financial model.

The mail server **116** handles electronic mail communication between the user and the financial advisor system **102**. The Mail server **116** may operate using any standard protocol such as Simple Mail Transfer Protocol (SMTP) and it is within the scope of the knowledge of one skilled in the art.

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The application server **126** is where the various modules of the financial advising system reside. The modules include the various coaching engines, the LifePath and the portfolio modeling sub-systems. The applications may be implemented in many programming languages, including the object oriented

10 programming languages such as C++ or Java™ and be based on any platform such as UNIX™ , Apple OS ™ or Windows™ and NT™. Furthermore, the coaching engine rules for various coaching engine can reside on a data server **180**.

Alternatively, the user may also interact with financial advisor system **102**

15 through a telephone **124**. The user's call is channeled through the call center system **117**. The call center **117** includes an Automatic Call Distribution (ACD) server **122**, an Interactive Voice Response Server (IVR) **124**, a Computer Telephony Integration (CTI) server **118** and a RM workstation **125**, all interconnected through a Local Area Network or intranet **127**. The local area network **113** may also be used in

20 interconnecting the various servers of call center. When the user calls into the financial advising system **102** using a remote telephone **124**, the IVR sever **124** receives the user's telephone call. The IVR system greets callers, prompting them for identification, and providing some information automatically. The Automatic Call Distributor (ACD) server **122** distributes the call using the Internet Protocol (IP)

over the network, to the appropriate live coach. The Computer Telephony

integration server (CTI) **118** acts as the link between the live advisor's telephone call

and the workstation based applications and allows them to automatically work

together. As an example, when the IVR server **120** obtains some information about

5   the calling user, this information is delivered to the live advisor's workstation **106**,

so the advisor does not have to request the same information again. Once the

telephone call is properly routed to the live advisor, the user can user other means of

communication such as electronic mail or white board ™ simultaneously while he is

interacting with the live advisor.

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The Data server **128** stores user input data and supplies the application

Server **126**. The data server **128** includes outside database sources from which the

financial advising system **102** can draw information such as actuarial data such as

historical price data on securities from sources such as Reuters, user financial

15   information such as banking and portfolio information in other financial institution,

and market information such as the days closing numbers for various market indices

as well as individual stock securities pricing information. Formatted in the Open

File Exchange (OFX) format, now the accepted internet standard used by programs

such as Quicken™ and MS Money ™ the data server through the firewall can easily

20   exchange information with the outside world and specifically the user.

It should be noted that various computing platforms could be used to access

the financial management system of the present invention. For example, a

networked personal computer environment, a client-server system, a mainframe

terminal environment, WEB TV terminal environment, dumb terminal environments

can be used to access the financial management system of present invention.

Depending upon the user's needs, a client-server system may be the most preferable

computing system for implementing the financial system of the present invention.

5   Furthermore, the representation of each server such as an application server or a data

server, is a logical representation. The actual physical systems may be distributed

over many servers, or be included on a single machine.

Figure 3 is a computer system architecture that can be used in implementing

10   the present invention. This computer system architecture can be used to implement

a user workstation, or any of the servers called for in figure 2. The present invention

may be practiced on any of the personal computer platforms available in the market

such as an IBM™ compatible personal computer, an Apple Macintosh™ computer,

Solaris™ or UNIX™ based workstation. The operating system environment

15   necessary to practice the present invention can be based on Windows™, NT™,

UNIX™, Apple Operating System™, or open source operating system software such

as Linux™ and Apache™. Furthermore, the computer system can support a number

of processes. As appreciated by one skilled in the art, the processes may be written

in any of the available programming languages including object oriented

20   programming languages such as Java ™ or C++.

The computer system architecture depicted in figure 3 includes of a central

processing unit 130, such as a microprocessor, a read only memory (ROM) 136, a

random access memory (RAM) 134, an input and output adapter 138, a storage

device **140**, and interface **142** connecting a plurality of input and output device such as a keyboard **144**, a mouse **146**, a speaker **148**, a microphone **150**, a video camera **152** and a display **158**, and a system bus interconnecting all the components together. The computer may also include such devices as a touch screen (not shown)

5   connected to the bus **132** and communication adapter **154** such as a dial up modem, a Digital Subscriber Line (DSL) modem or a cable modem, for connecting the workstation to a communication network **104** (e.g., the internet). The storage device **140** can be any number of devices including but not limited to hard disk drive, a floppy drive, CD-ROM, DVD, a tape device, and removable magnetic storage

10   devices such as a Jazz™ drive or ZIP™ drive. There are therefore a number of computer readable media encompassed by system depicted in figure **3**, including but not limited to RAM **134**, ROM **136**, storage device **140**, and storage accessible over the network connection **104**.

15   Figure **4** represents an illustration of the data flow of a financial Advisor System **102** of the present invention. A user using for example the user computer **110**, preferably connects to the Financial Advisor system **102** over the wide area network **104**. After authentication by a firewall server, the user at a user terminal **110** enters the Financial Advisor system **102** at the service level subsystem **160**. The

20   service level agreement provides the level of services to which the user is entitled. Once the user has negotiated a service level agreement **161** , he is prompted to select the model to be used in operation **162**. In one embodiment of the present invention, the level of service and support selected in the service level agreement **160** controls the user's access to different modeling tools.

In a preferred embodiment of the present invention the Lifepath model may

be the hub of the financial institution's relationship. The LifePath model provides

data to all coaching engine allowing customized coaching output to be dispensed to

5   the user based on his unique financial situation. The LifePath model combines all

the pertinent financial information about a user in one coherent and comprehensive

picture and models the user's life intentions into an aggregated cash flow system

over a user selected period of time. Using the terminal **110** the user inputs his life

intentions in terms of projected income and expenses. The LifePath model **164**

10   maintains an interactive dialog between the user and financial management system

100. The LifePath model integrates the financial information available about the

user in accordance with the user's service level agreement **160** to create an aggregate

forecast of cash flow over the user's lifetime. The financial information available

about the user includes the user's life intentions data **166** and the user's external

15   financial data **168**. In a preferred embodiment of the present invention, the user's

external financial data can include current checking account information from the

user's bank or data related the user's 401K plan. By incorporating external data **168**

into the LifePath model **164**, the system is capable of dynamically analyzing the

financial needs of the user and providing the user with an understanding of their

20   financial health at any point with minimal input form the user. As discussed above,

personalized service level agreement **160** can optionally allow the user to limit the

system's and/or advisor's access to the user's external financial data **168**.

Additionally, life path model **164** also integrates external market data **170**

into the aggregated forecast of the user's cash flow. In one embodiment of the

present invention, external market data **170** includes information such as current

mortgage interest rates or market inflation rates. Access to both internal and

5   external databases is controlled by the user's service level agreement. The LifePath

modeling tool **164** is further discussed in a related U.S. application named the

LifePath Counseling by the same inventors as the present invention, attorney docket

number AND1P758, filed on the same day as the present application and

incorporated herein by reference.

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Alternatively, the user may by pass the LifePath model and start with a

portfolio modeling tool **182**. The availability of the portfolio modeling tool is based

on the user's service level agreement **161**. The user would supply his financial

portfolio information to the financial advising system **102**, either directly using the

15   user terminal **110** or indirectly through the wide area network **104**, by accessing a

multiplicity of databases **166**, **168** and **170**, and accessing information such as his

securities portfolio at a particular brokerage firm.

A financial portfolio modeling tool **182**, is an interactive tool that has access

20   to the all the information available to the Lifepath model **162**, such as the user's life

intentions data **166**, the user's external financial data **168**, as well as external market

data **170**. User insight data **167** and aggregated data from the Lifepath model **165** is

also available to the portfolio modeling tool. As a result the user has little to input

and may start using the portfolio model **182** very quickly without the need to do a lot

of tedious data input. The financial portfolio modeling also allows the user to access a computer coach and/or a live advisor based in part on the service level agreement. An alternative embodiment allows the user to use the LifePath model **164** and set his long term financial goals and then use the portfolio modeling tool **182** to adjust his

5 investment portfolio to better achieve his long term financial goals.

The LifePath interactive financial model may capture customer's intentions at the start of the relationship and displays them as lifetime cash flow requirements. Customer data and LifePath information combine to form a deep understanding of

10 the customer's financial needs at each stage of life. Using dynamic, interactive multimedia, it quickly captures the customer's intentions and expectations about an ideal future. This flushes out some issues which trigger the initial discussions in the relationship. It also supports estimating the lifetime value of the customer and the appropriate levels of service. The data from this model combines with insight from

15 product and transaction history as well as real time input from the abundance of interactive models to power rule-based advice engines. This automated advice leverages the advisor's time so that a broad customer based can be profitably supported. Configured using sliders and other interactive controls, there is little typing to slow the process down. The controls build a linear graphic representation

20 of a life path which models predictable life transitions over time more effectively then data-driven calculators. Sales opportunities, lifetime customer value and appropriate fee structure are now more accurately identified.

Coaching generating subsystem **172** comprises one or more advice or coaching engines **174**. Coaching engine **174** dynamically analyzes the financial needs of the user in accordance with the user's service level agreement. Furthermore, the coaching engine **174** is configured to operate with coaching engine

5   rules repository **176**. Coaching engine rules repository **176** is a collection of rules-based business logic that produces clear automated advice. Coaching engine rules repository **176** generates its advice using LifePath data **165** and user insight data **167**. Alternatively the investment portfolio data from the portfolio modeling tool **182** triggers the coaching engines advise. In one embodiment of the invention, user

10   insight data **167** includes transaction history, product or purchase history, as well as demographic information about the user.

In addition to providing coaching to the user, advice generating subsystem **172** also recommends product solutions to the user. As an example, in one

15   embodiment of the present invention, the coaching engine **174** can recommend that the user include deposit products and loan products in their financial plan. For example, the coaching engine **174** can recommend that the user acquire a certain mortgage or bridge financing. Similarly, the coaching engine **174** can also direct the user to the need for financial products such as, home improvement, line of credit, or

20   credit card products. Coaching engine **174** can also have access to product information from various financial institutions (not shown). Accordingly, the user can request additional information about the various products recommended by the system.

The user can access their financial plan or life path model using user terminal 110. User terminal 110 is part of collaborative computing environment 178 and is in data communication with virtual coach 180 and the advisor terminal 106 through communications network 104. In one embodiment of the present invention,

5   communication network 104 is the Internet.

The advice and product solutions generated by the advice generating subsystem 172 are presented to the user through virtual coach 180. Virtual coach 180 presents the product recommendation with accompanying rationale. The user

10   may or may not wish to contact the dedicated financial advisor for additional advice or information. Because the system generates reasoned financial coaching in accordance with the user's financial needs and intentions, the financial advisor is able to operate more productively. Furthermore, the user can test different scenarios by altering the data captured by life path model 164. Each scenario can then be

15   analyzed by coaching engine 174. The virtual coach 180 is further described in the related U.S. application named Automated Coaching For A Financial Modeling and Counseling System, attorney docket number AND1P760, by the same inventors as the present invention, filed on the same day as the present application and incorporated herein by reference. Furthermore, the LifePath model is further

20   described in the related patent titled A Financial Planning and Counseling System Projecting User Cash Flow, attorney docket number AND1P758, by the same inventors as the present invention, filed on the same day as the present invention and herein incorporated by reference.

In addition to virtual coach **180**, the user can optionally interact with a dedicated financial advisor **106** through communications network **104**. In an embodiment of the present invention, financial advisor **106** is located in a call center **118** on a relationship manager's workstation **125**. Financial advisor **106** may

5   interact with user **110** using various multimedia interaction tools, for example, still-shot images or video streaming. Accordingly, the user is able to buttress the coaching received from virtual coach **180** with advice from a dedicated financial advisor operating at terminal **106**. In many situations, the live advisor's input may be necessary, since he brings a level of expertise and experience no automated

10   coaching system may match. However, since the automated coaching has framed the problem for the user and the live advisor, both can immediately start analyzing alternative solutions in a focused and cost efficient fashion.

      Depending on the level of service the user has negotiated with the service

15   level agreement **161**, he may have a multiplicity of modeling tools available in the financial management system. In alternative embodiments of the present invention, modeling tools for analyzing various financial instruments such as bonds, reverse mortgages, option contracts and a like may be available to the user.

20   Figure **5** illustrates a flow diagram of an embodiment of the Financial Advisor system **102**. The service level agreement process **160** may be one possible entry point for the user into the Financial Advisor system **102**, where the user negotiates a service level agreement and sets the level of financial service desired.

The service level agreement **161** defines the user's desired level of advisor support as well as limiting the system's access to user provided information.

5   After the service level agreement **182** has been negotiated, the user makes a first pass through the LifePath model **164**. Note operation **184**. In one embodiment of the present invention, the user may input its life intentions in terms of revenue intentions and expense intentions. The system then aggregates the information into a cash flow analysis over a user's income and expenses over a user defined period of time. The model may also include external data related to the user's finances. After

10   a first pass through the LifePath model (process **184**), the system may estimate the probable customer profitability **186** based on the user's financial plan given the user's life intentions and other financial information. If the user's service level agreement does not match the probable profitability **188**, the user can renegotiate the service level agreement negotiation or revisit LifePath model **184** to modify the

15   model parameters, and then prompt the system to re-estimate the probable user profitability **184**.

After fine tuning the LifePath model **188**, context sensitive automated computer coaching **192** is provided to the user using a coaching engine based on

20   business logic rule-based engine. The rules repository **176** supplies business rules. The automated coaching engine **174** may highlight for the user periods within his LifePath model which need special attention, such as a projected cash deficit or cash surplus. Based on the coaching from the automated coaching engine **174** and/or a live advisor, the user may accept or reject the LifePath model **194**. If the user rejects

the LifePath model, he may further modify and fine tune the LifePath model **188**
until he is satisfied.

In one embodiment of the present invention, the life path model process **196**

5   is followed by an Executive activity process **198** where the system allows the user to
assume an executive decision-making role in making their financial future. The
executive activity process **198** enhances the user's ability to manage his or her
financial life from an executive perspective. For example, through interaction with
the system, the user learns **200**, plans **202**, or decides **204** the respective elements of

10   their financial plan. Since the LifePath model **164** projects the user's cash flow in
the future, the user may use the LifePath modeling tool **164** to change input variables
such as savings, salary and expenses, and observe the long term effect of the changes
on his financial goals. The intuitive graphical display of the LifePath model allows
the user to get an immediate qualitative as well as quantitative feedback of the

15   effects of the incremental changes on his long term goals. After engaging in these
activities, the user may choose to initiate a transaction **206** based upon the advice
generated by the system. In alternative embodiments of the present invention, both
the automated coaching and the live advisor may recommend various financial
products suitable to the user's financial situation. Furthermore, after initiating the

20   transaction **206**, the user may monitor **208** and/or manage **210** the status of the
products selected. In one embodiment of the present invention, the learn icon **200**
allows the user to obtain information on the products recommended by the
automated coaching engine or the live advisor. The system may have to access
outside databases to access third party products which may be beneficial to the user's

financial situation. The rule based coaching further may check the governmental

regulations and impacts of adding or deleting a specific product to the user's

financial portfolio. The governmental regulations analyzed can include an analysis

of the tax consequences of using a certain product specific to the user.

5

Figure 6 is a logical flowchart of the service level agreement process within

the service level agreement negotiation 182. Preferably, financial advising takes

place within the framework of a service level agreement negotiated between the

customer and the financial system. The SLA nails down how much advisor time the

10   customer wants, how information will be shared, and how much intentions-based

advice the customer will welcome. The advisor configures the Web site in

accordance with this agreement. The investment of effort in this, along with the

personal online relationship begins to develop "stickiness". Much of the

communication presented by the system is generated by rule-based business logic.

15   This is what leverages the advisors, extending their reach. It should be noted that the

client negotiates a Service Level Agreement at the start of the relationship for

desired level of advisor support and how the model and/or the live advisor and the

financial institution providing the service may or may not use their personal

information. Website functionality can provide new levels of customer support even

20   if customer wants low level of advisor interaction.

When the user starts 209 the service level agreement process 160, he

determines a level of system management he desires 210. This includes a

determination of how much service and what kinds of service the user desires. Next,

27

the user determines the level of coaching and advice desired **212**. In one

embodiment of the present invention, the user may limit himself to the use of

automated coaching advice. Alternatively, the user can also limit the level and types

of communication he desires **214**. The service level agreement allows the customer

5   to tailor an explicit understanding about how much and what kinds of service will be

needed to meet his needs. This allows the system to match a service package to

expected customer profitability, establishes the basis for service fees, and sets a

service quality standard against which the system must deliver. The terms of the

service level agreement include a determination of how personal information will be

10   shared and used, how much administration will be off-loaded to the financial advice

system, how much modeling and advice is desired by the user or required by the

services selected, how much management of external and internal primary advisors

will be needed, how day to day communications are handled, and how third party

product brokerage will be managed. This list is by no means a comprehensive list

15   and , alternative embodiment of the present invention have different service level

agreement terms. At the end of the service level agreement (SLA) process **215**, after

the user has negotiated the various options within of the service level agreement **182**,

he may attempt a first pass at the LifePath model **164**.

20   Figure **7** is an illustration of a LifePath model web page interface. The web

page of figure **7** shows an embodiment of a customized web site using an intuitive

user interface for the LifePath model subsystem . As previously discussed, the web

site may be a personalized web site that a client uses to collaborate with a dedicated

virtual (or live) financial advisor. As depicted, the graphical user interface can

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include an advisor area **216**, where images of the live advisor may be represented as a still images, as streaming video, or represented by a character. Selecting a link, such as the Contact Advisor link **218** shown, causes a connection to the advisor to be established. Preferably, the advisor and the user are able to communicate orally via

5　network telephony of a type known in the art, but communication via email, chat, telephone call, or of any other type is acceptable as discussed in Figure **2**.

The advisor uses the space to negotiate an initial Service Level Agreement (SLA), and begin the modeling of the customer's Lifepath. This flushes out issues

10　and permits an early estimate of customer value potential.

A link **220** may be provided that allows access to email. Other links can include a link **222** to personal memoranda, a link **224** to a links page, and a link **226** to a financial calendar. As an option, a calendar **228** and links **230** to news stories

15　may be displayed on the page. In one embodiment of the present invention, the news can be customized by each user to fit his individual needs.

A virtual coach area **232** of the page may be provided to display the comments and advice created by the virtual coach. As described above, client data

20　drives a rules-based "advice engine" that dynamically analyzes customer needs and automates most of advisor's work. The client may be encouraged to consolidate all their financial information in the site, recognizing assets and liabilities with other financial institutions. The virtual coaching area can be used both as customized coaching and as a platform to introduce various financial products, including third

party products brokered by the financial institution owning the financial advisor system.

5   Upon selection of a button depicted along the bottom of the screen, a particular feature of the financial management system is displayed. For example, selecting the learn button 234 may bring up a portion of the screen (or a new screen) that discusses the functions and features of the financial management system. In an alternative embodiment, the learn button may be used to obtain specific information on the financial products presented to the user. The plan button 236 may display the

10   LifePath model in time series form. A decide button 238 may display a screen that allows the user to make financial decisions, such as allowing a user to select transactions recommended by the advisor and/or the virtual coach. A transact button 240 may display a transaction screen on which the user performs transactions. A monitor button 242 may display current and/or historical information about

15   transactions made by the user and/or financial performance.

Risk analysis may be integrated into the LifePath model 164 enabling clients to better understand their financial health and to improve trade-off decisions. Formulating a personal risk/reward strategy is difficult. The LifePath model 164

20   may support a risk simulator, showing how the ideal model would be impacted by typical life crises. The model can be played repeatedly with varying outcomes to foster an intuitive understanding of exposure and to provide grounded input into trade-off decisions. Using the risk modeling tools, the advisor can add value, consolidate the relationship and rationalize a stream of product sales.

As shown in Figure **8**, life path model **164** captures the user's life intentions expressed as revenue intentions **244** and expense intentions **246**. As discussed above, revenue intentions **244** are a summary of the user's expense information **246**. The user is provided with an individual button for each of the income information

5   categories **244**. For example, the user can input their income information such as salary, investment, pension, alimony, or disability, or other financial information as shown in Figure **8**. Similarly, the user can input their expense intentions which are shown by the category of interactive buttons **246**. For example, the user can input expense information such as housing, transportation, education, health care, or other

10   expense information as shown in Figure **8**. Neither the income category nor the expense category is limited to the displayed icons. The "other" button under the revenue category enables the user to input user specific sources of revenue such as inheritance. Same flexibility applies to the expense category allowing the user to input types of expenses not categorized under the standard expense icons. The user

15   may import his past revenue and expenses from financial programs such as Quicken™ or MS Money ™ simplifying reducing the amount of typing necessary to do so.

Additionally, the user may control the level of risk that the model considers

20   by selecting one or more of the graphical user interface ("GUI") elements from the list of risk events **248**. The risk events **248** may include various life events that may affect the user's life path model. For example, the user can request that the model include job loss, disability, casualty, market downturn, or other personal risk factors into their life path model. In one embodiment of the present invention, the risk

modeling component uses actuarial data from outside databases to supply the data

related to the probability and the effect of the occurrence of a particular risk event.

Alternatively, the user may estimate the impact of a particular risk event. For

example a user may estimate the possibility of a job loss knowing his skill sets and

5   the status of the job market. Furthermore, he can better predict the length of time he

may be out of work. On the other hand automated coaching, based on actuarial and

economic data, may estimate an average length of time a typical person in the user's

field of expertise may remain out of work after a job loss. The user may accept or

reject the automated coach's estimates and use his own information.

10

After providing the model with his or her life intentions expressed as revenue

intentions **244** or expense intentions **246** in addition to any of the risk events, the

user can select button **250** to run the life path model and initiate the advice

generating subsystem. Accordingly, the user is provided with detailed advice in

15   window **252** that is tailored to the user's life intentions and the risk events specified.

As shown in window **252**, the user is provided with a clear automated coaching

tailored to his or her life intentions gathered by the life path model. Furthermore, the

coaching incorporates the risk events specified from the risk factors **248**. The

graphical display **253** in figure **8** is a time series representation of the aggregated

20   total of the user's cash flow over a selected period of time, based on the user

provided revenue intentions **244** and expense intentions **246**.

Additionally, the system provides the user with virtual coaching that watches

the actions of the user while progressing through the life path model and provides

the user with suggestions to ensure that they continue to comply with his or her life intentions.

In another embodiment of the present invention, the financial advisor system

5   102 includes a portfolio modeling tool subsystem 182. The user would get to the model either after having setup a financial profile through the Lifepath model 164 or he can access the financial portfolio building model directly.

Figure 9 is an exemplary graphical user interface 254 that embodies the

10   various concepts and methods set forth for financial portfolio modeling in one embodiment of the present invention. As shown, the graphical user interface 254 includes a plurality of fundamental selection icons 256 including a my page icon 258 for displaying a graphical user interface specifically tailored for a particular user, a save icon 260 for saving any changes made to the graphical user interface 254, an

15   export icon 262 for exporting data displayed by the graphical user interface 254, a print icon 264 for printing various fields of the graphical user interface 254, a help icon 266 for obtaining help information, and an exit icon 268 for exiting the graphical user interface 254.

20   My page icon 258 displays a web page that can be customized to each user's need, simplifying the use of the portfolio model 182. In one embodiment of the present invention, the portfolio modeling system may use the Open File Exchange (OFX) protocol which has become the standard protocol for the exchange of financial information over a wide area network , and particularly the internet. Thus

exported data from the portfolio modeling system into other financial programs is

formatted to be easily usable by these programs.

5   Further displayed on the graphical user interface **254** may be a plurality of

mode icons **270** for initiating various modes of operation. The mode icons **270** may

include a transact icon **272** for initiating transactions involving the purchasing and

selling of investments utilizing a network, a monitor icon **274** for monitoring the

performance of the investments, a model icon **276** for generating an investment

model based on criteria entered by the user, an explore icon **278** for retrieving

10   information on the investments, and a track icon **280** for tracking the investments

utilizing the network. In the preferred embodiment of the present invention, the

Wide Area Network **104** is the Internet and the portfolio modeling system **182** has

access to outside databases such as Reuters and Bloomberg for historical and current

securities pricing and market indexes.

15

        With continuing reference to Figure **9**, a communication medium **282** may be

employed to converse with other users, namely financial advisers, etc. Such

communication medium **282** may include a window **284**, and a plurality of

communications icons **286** that enable various types of communication between the

20   user and the live coach or advisor. Such communications icons **286** include an e-

mail icon, a chat icon, a voice icon, a talk icon, a clips icon, and a video icon. The

mail server **116** and call center **118** allow the user to contact the advisor by email or

telephone call. The mail server may further support live chat and voice over the

network as well as a collaborative medium such as a White Board™ . Depending on

the bandwidth available to the user, he may receive still pictures or live streaming

video of the advisor, or he may see an animation.

5   The incorporation of the various communication technologies and programs within the context of a financial advising system is further described in a related application named Communication Interface for a Financial Modeling and Counseling System, attorney docket number AND1P757 , by the same inventors as the present application, filed on the same day, and incorporated herein by reference. Also, the graphical user interface of figure 9 is further described in the U.S. related

10   application by the same inventors, titled A User Interface for a financial Modeling System, attorney docket number AND1P759, filed on the same day as the present invention and herein incorporated by reference.

    A filtering field **288** is also shown in Figure **9**. Such filtering field **288** may

15   include a plurality of companies and associated risk levels and industries which are displayed in accordance with the user's appropriate tolerance to risk and investment style. A risk/reward map **290** is also shown displaying the probability of the user reaching its financial goals. Also shown is a coaching window **292** for displaying coaching strings **294** based on a rule-based automated coaching engine. Such

20   window **292** may include a field adjustment bar **296** in order to facilitate viewing of the coaching strings **294**.

    Further features associated with the graphical user interface for the portfolio modeling **182** include an information window **298** which illustrates various charts

pertaining to sector diversification and other investment parameters. A portfolio

model window 300 may also be displayed for portfolio modeling purposes. It should

be noted that the various services provided by the present invention may be initiated

by selecting corresponding service icons 302. The optimize icon 301 optimizes a

5   securities list based on the newly specified criteria. The criteria icon 303 enables the

user to introduce additional criteria for selecting a particular security. The trade list

305 displays the system recommended securities that should be sold based on the

user criteria and his personal financial parameters. The filter icon 307 generates a

filtered list of securities displayed in the filtered list window 288. Sort icon 315

10   sorts the list of securities based on a user selected criteria such as alphabetical order.

The coaching icon 313 generates context sensitive coaching related to the user's

financial portfolio. The undo icon 311 undoes a specific swap of securities. The

submit icon 309 submits and the user changes to his portfolio during the current

session.

15

Further, a profile may be viewed and adjusted using a plurality of profile

icons 304. This ease of use helps the user to feel comfortable with the system and

trusting of it, allowing him to take full advantage of the all the integrated features of

the system.

20

The user may set a targeted goal for his investment portfolio as well as his

preferences by selecting the target and preference icon 306. He may do an analysis

on his past or present portfolio by selecting the portfolio analysis icon 308. He may

trigger specific coaching on specific a security or group of securities or even on

whole industry sectors, as well as request more detail information by selecting the

stock analyst icon **310.** He may further model and analyze the effect of inclusion or

exclusion of particular securities on his portfolio by swapping stocks in and out of

the portfolio **312.** When selecting a particular icon corresponding to the various

5   tools, a corresponding help text string appears in the help screen **314,** directing the

user on how to use the particular tool.

Figure **10** illustrates an investment portfolio management method utilizing

automated coaching in a network based financial framework. First, in operation **319,**

10   a plurality of parameters may be set for a subject utilizing a network. The

parameters include personal investment parameters **316,** personal financial

parameters **318,** and/or asset mix parameters **320.** Such parameters may include a

minimum retirement, target floor, investment rate, tax implications, etc. In

operation, the parameters may be selected manually by the subject using a desired

·15   graphical user interface, or by a third party. Parameters such as target floor may be

based on the subjective determination by the user of the minimum standard of life

he is willing to accept in a future time, such as in his retirement. Based on this

determination, the user or a third party may determine the size of the investment

portfolio required to support that life style.

20

Next, the network may be utilized to provide the subject coaching from an

investment coaching engine in operations **322,** where such coaching relates to the

setting of the parameters. The coaching may be provided by utilizing a look-up table

which is capable of generating various combinations of advice based on the settings.

In the alternative, the advice may be generated using any other type of artificial intelligence system.

At least one financial model for a portfolio of the subject is subsequently generated in operation **324** based on the setting of the parameters. This may be generated using a system similar to that which generates the coaching, or any other desired means. The network is again used to provide coaching from the investment coaching engine to the subject with the coaching relating to the generated financial model.

As shown in Figure **10**, the personal investment parameters may include a risk tolerance parameter **326**. Further, the coaching by the coaching engine **328** may provide a textual risk tolerance profile for the subject based upon an interpretation of current risk tolerance parameters of the subject as textual analysis.

Further, the personal investment parameters may include an investment style parameter **330**. In such embodiment, the coaching by the coaching engine **332** provides a textual investment style profile for the subject based upon an interpretation of current investing style parameters of the subject as textual analysis.

In yet another embodiment of the present invention, the personal investment parameters may include a bull/bear attitude parameter **334**. A bull attitude is one of optimism that the stock market will go up, while a bear attitude is where the user believes the stock market would go down. In the present embodiment, coaching by

the related coaching engine **336** provides a textual description of an implied future of
financial markets and graphs showing forecast curves of financial markets based
upon the building of financial market forecasts which are, in turn, based upon
evaluations from financial experts.

5

In one embodiment, the coaching by the coaching engine **338** relating to the
setting of the personal financial parameters in operation **340** provides an alert if the
investment parameters of the subject conflict with LifePath cash flows or personal
parameters based on a consistency check of the investment parameters with data

10   obtained from a LifePath model **164** and personal investment parameters.

With continuing reference to Figure **10**, the coaching by the coaching engine
342 relating to the setting of the asset mix parameters in operation **344** provides a
rationalization of the asset mix based on personal and financial parameters of the

15   subject and at least one computer generated asset mix. No penny stocks would be
included if the subject is conservative, only treasury bills. A pie chart may also be
included that represents a portfolio showing the subject's assets.

In still another embodiment, the financial model comprises a model of an

20   existing investment portfolio of the subject. Note operation **346**. The coaching by
the coaching engine **348** provides an analysis of market-related growth by security
and sector, trend analysis, fee and service analysis, and/or dividend and interest
impact based upon transaction history and current market values of the existing
investment portfolio. The coaching by the coaching engine **348** may also provide an

analysis of growth, risk and value of the existing investment portfolio based on

market data and expert analyst opinion.

Still yet, the coaching by the coaching engine **348** may provide an evaluation

5   of the existing investment portfolio relative to the personal and financial parameters

of the subject based on a comparison of growth and volatility projected forecasts to

the personal and financial parameters of the subject. It should be noted that similar

capabilities may be provided using a model based on a computer generated portfolio

in operation **350**.

10

In operation **352**, the financial model may include a model of an investment

portfolio of the subject generated by the subject alone or with the input of a private

banker. Coaching by the coaching engine **354** provides an analysis of growth, risk

and value of each security in the investment portfolio based on a concatenated, user-

15   friendly English format of market data and expert analyst opinion obtained utilizing

the wide area network **104**.

Further, the coaching by the coaching engine **354** may provide an evaluation

of the contributions of securities in the investment portfolio relative to the personal

20   and financial parameters of the subject based on a comparison of the personal and

financial parameters of the subject to an analysis of risk compliance, growth, and

volatility. The automated coaching engines mentioned above are further described

in the related U.S. application titled Automated Coaching for A Financial Modeling

and Counseling System by the same inventors as the present application, attorney

docket number AND1P760, filed on the same day as the present application and herein incorporated by reference.

5   The first wave of customers of online discount brokerage customers have been characterized by sophisticated investment knowledge and confidence in acting as integrators of their own financial lives. They have established their own balance between risk and reward. Most of today's typical investors, typically know relatively little about the technicalities of investing.

10   In one embodiment of the present invention, a financial risk management sub-system may include traditional fundamental/technical data and analyst interpretation. Much of this is meaningless to the average investor however. The present invention's approach meets their information and learning requirements in these ways. First it develops detailed profiles of the user's investment personality

15   and customizes all information such as coaching to the user profile. Second the system uses coaching engines to translate fundamental and technical data into natural language textual coaching string outputs, customized to the user. Furthermore, the financial modeling and counseling system alerts the user to investment activities which are incompliant with his personal investment parameters

20   such as his risk tolerance, investment style and so on ... The financial modeling and counseling system further provides automated coaching throughout the investment process.

Risk tolerance, investment style and financial outlook are established through

a series of interactive multimedia- based scenarios which unfold online. These

exercises provide immediate coaching feedback to the user. The results are stored as

5   a multidimensional profile which is used by modeling and coaching activities

throughout the portfolio management process.

Figure 11 is a flow diagram illustrating the set risk tolerance operation 326

in an embodiment of the present invention. At the start at 356, he is prompted for

10   the security type to be used for risk profiling 358. Next, an iteratively negative

financial scenario is presented to the user and he is asked if he wants to bail out once

confronted with this scenario 362.

The negative scenarios presented to the user are generated by the coaching

15   engine 328 and may include scenarios such as negative news related to a particular

security and the company's future growth or performance and profitability. Faced

with this situation, the user may decide to hold on to the particular security or sell

and bail out. In one embodiment of the present invention the representations may

include both textual and graphical representation, and may further include headline

20   news indirectly related to the particular company. Alternatively, the scenario

generated may encompass as whole sector or industry such as the interest sensitive

construction industry. Both indirect economic news such as a forecast of future

interest rate and direct economic news such as declining housing starts or sales of

new homes are presented to the user and his reaction to the negative news is

indicative of his personal risk tolerance. If the user selects to bail out **364** based on the negative financial scenario, his risk tolerance profile is adjusted accordingly **366**. If the user refuse to bail out, he is confronted with an iteratively more negative market scenarios **360** scenario and again he has the option to bail out **364**.

5   Depending on when the user selects to bail out **364**, the system adjusts the user risk profile for that security type **366**. The process is repeated for other types of investment such as Retirement, Tax deferred environment. At the end of the process, the automated coaching generates coaching to describe the user's risk tolerance profile at **366** and the process is complete at **368**. Alternatively, the user's

10   risk tolerance level can be set manually by a third person such as the live advisor or even possibly by the user himself. The setting of personal investment parameters **316** is further described in the related U.S. application titled Financial Portfolio Risk Management System, by the same inventors as the present application, attorney docket number AND1P756, filed on the same day as the present invention and

15   herein incorporated by reference.

Figure **12** illustrates a flow diagram for determining an investment style in a network-based financial framework. The present technique is intended to not just ask questions, but provide scenarios. It sets up a portfolio of stocks that an investor

20   can trade or not trade on these fictitious stocks, and provides examples of how the stock market can move. The present method develops a profile and helps target information effectively for the particular person. Coaching is strategically designed to keep the risk minimal by avoiding telling what someone should do. Scenarios will also identify areas of weakness in one's knowledge.

In one embodiment, the interactive input exercise may include top down or bottom up test scenarios **372**, trading frequency test scenarios **374**, needs for information and research test scenarios **376**, level of expertise test scenarios **378**,

5 and/or strategic or pragmatic test scenarios **380**. For example, a bottom up investor would start with a vision of the economy and decide what to invest in, and then they would look at one stock at a time and make a decision. Trading frequency is used by the system to project the user's portfolio performance in the future by taking into account trading cost. Level of expertise scenarios may be used to customize

10 coaching strings and the level of explanation put forth by the automated coaching.

In use, an investment profile of the subject is generated based on the at least one interactive input exercise in operation **382**. Coaching is also provided for the subject based on the generated investment profile. A display may be generated for

15 the subject based on the generated investment profile. Note operation **384**. In one embodiment of the present invention, the user may reject his investment style parameter as presented to him by the automated coaching and go through the process **370** to reset his investment style parameter.

20 Figure **13** illustrates a flow diagram for the "set Bull/Bear attitude" in operation **334**. The instant aspect of the present invention is able to come to a conclusion about a person. For example, it may determine how confident a person is about the future. Online polling is one technique that allows the present invention to become the basis of a customer's long-term parameters. It achieves a systematic

attempt to capture one's perspective on the economy as a whole. First, an expert is selected utilizing a network in operation **386**.

Next, an opinion from the expert is rendered utilizing the network and

5 witnessed in operation **388**. At least one evaluation of the expert's opinion is then received from a subject utilizing the network. Note operation **390**. As an option, the step of obtaining the evaluation may be accomplished by displaying to the subject a plurality of choices for expressing the subject's agreement with the opinion of the expert, receiving a selection of one of the choices from the subject utilizing the

10 network, and storing the selection. In one aspect of the present invention, the plurality of choices displayed to the user may include the following: strongly agree with the opinion, agree with the opinion, neutral to the opinion, disagree with the opinion, and/or strongly disagree with the opinion.

15 In operation **392**, the subject may be permitted to select at least one other expert utilizing the network after which operations **386-390** of the present invention may be repeated. The evaluation(s) may then be aggregated from one or more subjects, as indicated in operation **394**.

20 Thereafter, in operation **396**, at least one financial model is built based on the aggregated evaluation from the subject. As an option, the financial model may be selected from a model based on the future of a financial index, a model based on an interest rate curve, and a model based on a gross domestic product (GDP). Further, the financial model is displayed in operation **398** utilizing the network. In one

aspect of the present invention, the subject may be coached utilizing the network.

See operation **400**. Such coaching may be based on the financial model. The

coaching would analyses the user's market attitude (bull/bear attitude) and explain

the resulting market model in natural language. The resulting market attitude would

5   be used by the modeling and coaching engines to project the user portfolio's growth

over a period of time. Once the user has quantified his market attitude through

operation **334**, he presented coaching advice that includes the user's market attitude

in all future analysis.

10   Once personal investment parameters have been identified, the user is

prompted to input some basic personal financial parameters **318**. Unlike the

Personal Investment Parameters, which are largely qualitative, the Personal Financial

Parameters are quantitative. They may include, initial and target values of the

portfolio, the user's investment time frame, and whether the portfolio is a tax exempt

15   IRA, 401K or Canadian RRSP

One important datum is the "floor." In a retirement portfolio this would be

the bare minimum acceptable lifestyle the customer would be prepared to accept.

The risk model used for analysis projects the portfolio value forward compounded at

20   its current rate of growth. Surrounding the forecast line there are risk bands showing

best and worst case scenarios given the aggregated volatility of all contained

securities. The bands are preferably defined for example, by Bell curve theory and

represent a sigma value related to the confidence level the customer requires in the

forecast. The greater the confidence required, the wider the bands. If the "floor'

value ends up within the bands, the customer is at risk of an unacceptable retirement.

The customer can settle for less confidence in the portfolio projection. He may also

optimize a portfolio that hits the target with lower risk using the automated coaching

to guide him. He may further accept a lower target at lower risk and rebalance his

5   portfolio. He may simply lower his "floor" or decide to increase his contribution.

Once the user's personal investment parameters and user's personal financial

parameters have been established, the system sets the asset mix **320**.

Figure **14** is a flow diagram illustrating a method for automated portfolio

10   generation utilizing a network. Three powerful portfolio tools use the personal and

financial profile parameters as inputs. A tool may be used to create a customized

portfolio automatically. It may create an ideal proportional breakdown of security

types based on the customer's personal and financial investment parameters. Having

created a set of filters, it may then select appropriate securities of each type at the

15   right level of risk and volatility, validate the aggregated growth and volatility, and

iterate if necessary. This risk modeling tool may be used by the user or by the live

advisor to on the customer's behalf. The risk modeling sub-system allows to

automatically analyze an existing portfolio, or to swap stocks in and out of the

portfolio with automated coaching or the live advisor's help.

20

First, in operation **316,318 & 320**, financial information is received from a

subject utilizing a network. In one embodiment of the present invention, the

financial information of the subject includes personal investment parameters **316**

and/or personal financial parameters **318** of the subject.

Filters are then generated based on the received information of the subject in operation **402**. Thereafter, historical data may be obtained on investments utilizing the network. Note operation **404**. The historical data on investments is then filtered

5   in operation **406** with the generated filters. Using the filtered data, a financial portfolio may then be generated for the subject in operation **408**. Further, the filtered data may be weighted by an asset mix and/or risk tolerance of the subject.

In operation **410** shown in Figure **14**, aggregated growth and volatility may

10   be calculated based on the built financial portfolio. Further, it may be determined whether the aggregated growth and volatility match the financial information of the subject. Note operation **412**. When it is determined in decision **414** that the aggregated growth and volatility fail to match the financial information of the subject, the filters may be adjusted. Such filters are adjusted until the aggregated

15   growth and volatility match the financial information of the subject. Finally, in operation **416**, displays are generated based on the built financial portfolio.

Figure **15** illustrates a flow diagram for modeling an existing financial portfolio. First, the performance of at least one investment of a subject is

20   determined utilizing a network. As shown, the performance of the investment includes obtaining a transaction history of the investment in operation **418**, obtaining a current market value for the investment in operation **420**, and analyzing the performance of the investment based on the transaction history and the current market value of the investment. Note operation **422**.Next, financial information is

obtained relating to the investment of the subject. The step of obtaining the financial

information relating to the investment may include obtaining historical data on the

investment in operation **424**, and obtaining research relating to the historical data of

the investment in operation **426**.

5

With continuing reference to Figure **15**, the aggregated growth and volatility

of the investment is calculated in operation **428**. Such calculation may be performed

based on bell curves, and other statistical techniques. Best case and worst case

scenarios may also be produced.

10

A projection to a target date is subsequently built for the investment. Note

operation **430**. This is done based on the determined performance of the investment,

the financial information relating to the investment, and/or the calculated aggregated

grown and volatility of the investment. Finally, displays are generated based on the

15   built projection. Note operation **432**.

As shown in Figure **15**, coaching and a report **434** may be provided to the

subject utilizing the network based on the determined performance of the

investment. Further, coaching may be provided to the subject utilizing the network

20   based on the obtained financial information relating to the investment. Note

operation **436**. Such network may also be used to provide coaching in operation **438**

with the generated displays relative to personal and financial parameters of the

subject.

Figure **16** illustrates a flow diagram of a process **352** of figure **10**, to

rebalance a portfolio with the aid of the automated coaching **352** in an embodiment

of the present invention. In the first step the modeling system creates a portfolio

model using either an existing portfolio or starts with a computer generated portfolio

5   **440**. Next the user selects security from the list of filtered securities for possible

"swap" or exchange with securities already in the portfolio **442**. The securities are

filtered based on the user's personal investment parameters **316** and the user

personal financial parameters **318**. For example, securities with higher Value At

Risk coefficient than the permissible user risk tolerance are rejected. Securities are

10   selected from user preferred industry sectors such as electronics or transportation.

The system obtains historical data, technical and fundamental data, and research and

breaking news or expert opinion, all pertaining to the particular security **444**. The

coaching engine converts the data into natural language, non technical coaching

strings **446**. Automated coaching provides analyses of the technical and

15   fundamental data and provides growth, risk and value analysis for each security

selected **448**. After the automated coaching output, the user may elect to do a "trial

swap" of the security and observe the impact of the swap **450**. The modeling system

recalculates the portfolio model including the added securities and the subtracted

securities. The system further does a risk compliance to meet the with the user's

20   personal investment profile **452**. Furthermore, the new portfolio's growth and

volatility are analyzed by the system and the automated coaching engine translates

the effect of the swap on the portfolio performance in non technical natural language

454. If the user is satisfied with the resulting swap he may accept it **456**. If he is

unsatisfied with the security swap, he may reject it **458**. In one embodiment of the

present invention, the user may place an order to purchase the particular security

through the financial modeling system, using the network.

Figure 17 is flow diagram of an example of one embodiment of the

5   automated and live coaching subsystem 192 for the LifePath model 164. The user

has access to an automated coach or a live one at all level of the financial

counseling model 102.

Once the user has setup his financial model, he may be prompted on whether

10   he needs live coaching 460. If the user selects live coaching 468, the system checks

the service level agreement 161 for the level of services included in agreement 464.

If live coaching is part of the service level agreement available, the system would

establish connection with a live coach 468 via live streaming video, still pictures,

streaming audio, email, live chat, or direct telephone. In one embodiment of the

15   present invention, the user's selection of the communication medium may also be

restricted by the level of service selected. If the service level agreement 161 does

not authorize this level of service, the user is limited to accessing an automated

coach 466. In one embodiment of the present invention, the service level agreement

may limit the user's access to automated coaching. The system may prompt the user

20   on the need for more coaching and direct more coaching strings to the user screen

based on the level of service selected. The automated coaching 466 may also

encourage the user to increase his level of service, so that he may benefit more fully

from all the financial management system has to offer.

The various embodiments described above are provided by way of illustration only and should not be constructed to limit the invention. Those skilled in the art will readily recognize the various modifications and changes which may be made to the present invention without strictly following the exemplary embodiments

5   illustrated and described herein, and without departing from the true spirit and scope of the present invention, which is set forth in the following claims.